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REMARKS

Claims 1-21 are pending in the application. Claims 1, 10 and 19 are independent. Claims 5, 7, 14 and 16 have been amended herein. The attached page is captioned "Version with markings to show changes made".

Section 112, second paragraph Rejection

Claims 5, 7, 14 and 16 were rejected under Section 112, second paragraph, as indefinite. Specifically, the action takes the position that the "term 'digital step'... is used by the claim to mean 'predefined number of centimeters/step'" and that "the accepted meaning of step is 'part of a routine or sequence'". Applicants respectfully submit that they have *not* used a meaning of this term that is "repugnant to the usual meaning of the term" and in fact, one of the meanings of the word "step" as indicated in Webster's New World Dictionary is "a short distance".

In addition, Applicants respectfully direct the Examiner to page 13, lines 2-19 of the specification as filed, which is believed to clearly support the language used in the claims and to eliminate any ambiguity as to the meaning of the language of the claims.

However, in order to expedite the prosecution of the application and to eliminate any issues with regard to Section 112, second paragraph rejection, Applicants have amended each of Claims 5, 7, 14 and 16 herein in a manner which is believed to clearly remove any ambiguity. Withdrawal of the outstanding Section 112, second paragraph rejection is accordingly requested.

Section 103(a) Rejections

Claims 1-21 were rejected under 35 USC 103(a) as being unpatentable over US Patent 6,323,915 (Marilak et al.), US Patent 5,537,149 (Teraoka et al.) and Applicants admitted prior art (figures 1 and 2).

This rejection is respectfully traversed and reconsideration is requested.

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Independent Claim 1 is directed to a method for performing autoconvergence including the steps of receiving an image having a first aspect ratio and a plurality of sides, displaying the image on a display having a second aspect ratio and at least one sensor corresponding to each side of the image and *moving the image so that each sensor can detect the corresponding side of the image.*

Independent Claim 10 is directed to a machine-readable medium whose contents cause a computer system to perform autoconvergence by performing the steps of receiving an image having a first aspect ratio and a plurality of sides, displaying the image on a display having a second aspect ratio and at least one sensor corresponding to each side of the image and *moving the image so that each sensor can detect the corresponding side of the image.*

Independent Claim 19 is directed to an apparatus to perform autoconvergence including a video receiver to receive a video signal representing an image having a first aspect ratio, a display connected to the video receiver to display the image, the display having a second aspect ratio and at least one sensor and an image adjustor connected to the video receiver and display to *adjust the displayed image on the display for the at least one sensor to detect the image.*

The Action takes the position that Marflak teaches the steps of (1) receiving an image having a first aspect ratio and a plurality of sides and (2) displaying the image on a display having a second aspect ratio. The Action then relies upon applicants' Figures 1 and 2 (admitted prior art) as teaching "the use of sensors on a display to control the displayed picture...and assist is the adjustment of the displayed picture" and upon Teraoka as describing a system in which "the video signal size is adjusted to maintain the distance from the original vertical and horizontal center".

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The Action concludes that it would be "obvious" to modify Marflak:

- 1) with conventional sensors ...to properly align/display the received signal; and
- 2) while maintaining the center position of the original image as disclosed by Teraoka.

First, Applicants respectfully submit that neither of the cited references, Marflak or Teraoka (nor Applicants' figures 1 or 2), teach or suggest a method for performing autoconvergence in which a received image is moved so that each sensor can detect the corresponding side of the image (this element is recited in each of independent Claims 1, 10 and 19). The Action fails to indicate which reference, if any, the Examiner is relying upon to provide such teaching.

As indicated in Applicants description of Figures 1 and 2 (see page 3, lines 1-24), the conventional use of a sensor placed at the sides of a display screen requires that "in order to perform autoconvergence, the displayed picture *must at least meet or overlap the sensors*" (lines 10-11). The specification notes that with regard to Figures 1 and 2, when the top and bottom edges do not meet or overlap the top and bottom sensors, no pattern can be displayed. Therefore, Figures 1 and 2 and the teachings thereof, fail to teach or suggest *moving a received image so that each sensor can detect the side of the image*.

In addition, there is simply no teaching or suggestion in Marflak which does not even teach or suggest the use of sensors, a method for performing autoconvergence in which *a received image is moved so that each sensor can detect the corresponding side of the image*.

Finally, Teraoka also fails to teach or suggest the use of sensors as it merely uses circuitry to non-linearly compress the horizontal scale and non-linearly expand the vertical scale (or vice versa) to display an image of 4:3 aspect ratio on a display screen of 16:9 aspect ratio. Teraoka does not teach or suggest "*moving an image so that a sensor could detect the corresponding side of the image*" but rather simply describes that the

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rate of non-linear expansion is increased as a position within the image becomes distant from the *center* of the image.

For all of the foregoing reasons, Applicants respectfully submit that figures 1 and 2, Marflak and Teraoka, fail to teach or suggest a method or device for performing autoconvergence, in which an image is *moved so that a sensor can detect the side of the image*.]

In addition, Applicants respectfully submit that the Action is relying upon impermissible hindsight in the alleged "obvious combination" of references and the alleged teachings therein. Of course the motivation to modify prior art, such as Marflak, must flow from some teaching in the art that suggests the desirability or incentive to make the modification needed to arrive at the claimed invention. In re Napier, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995). —

In this regard, the Federal Circuit has repeatedly warned that the requisite motivation must come from the prior art and not Applicants' specification. In re Dow Chem. Co., 5 USPQ2d 1529, 1531-32 (Fed. Cir. 1988). To support a conclusion of obviousness, "either the references must expressly or impliedly suggest the claimed combination or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985).

Here, Marflak, Teraoka and figures 1 and 2, at least, plainly fail to suggest the claimed combination. Marflak uses a "border modification signal" to modify and display a "second image" -- Marflak would have no reason to turn to the teachings of Figures 1 and 2 *to implement sensors* and, then, *to move a received image* so that the sensors could detect the sides of the image (which again, is not taught or suggested in any of the cited references).

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For each of the foregoing reasons, Applicants submit that Marflak, Figures 1 and 2, and Teraoka, taken separately or in any permissible combination, fail to teach or suggest the elements recited in independent Claims 1, 10 and 19. Accordingly, it is respectfully submitted that in regard to the above amendment and accompanying remarks, that independent Claims 1, 10 and 19 and Claims 2-9, 11-18 and 20-21 dependent thereon, are allowable over the art of record. An early indication thereof is respectfully requested. Should the Examiner be of the view that an interview would expedite consideration of this Amendment or of the application at large, request is made that the Examiner telephone the Applicants' undersigned attorney at (908) 518-7700 in order that any outstanding issues be resolved.

Respectfully submitted,

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Date

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I hereby certify that this document and any document referenced herein has been transmitted via facsimile to the US Patent and Trademark Office at (703) 872-9314 on September 18, 2002.

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In The Claims

Claims 5, 7, 14 and 16 have been amended as follows:

5. (Amended) The method of claim 4, wherein shifting said image comprises:
measuring a first vertical height and a horizontal width for said display;
defining a digital step, indicating a predefined number of centimeters per step, for said display;
determining a distance between said side and said sensor;
determining a number of digital steps corresponding to said distance; and
shifting said image said number of digital steps.

7. (Amended) The method of claim 6, wherein stretching said image comprises:
measuring a first vertical height and a horizontal width for said display;
defining a digital step, indicating a predefined number of centimeters per step, for said display;
determining a distance between each side and each sensor;
determining a number of digital steps corresponding to said distance; and
stretching said image said number of digital steps.

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14. (Amended) The machine-readable medium of claim 13, wherein shifting said image comprises:
measuring a first vertical height and a horizontal width for said display;
defining a digital step, indicating a predefined number of centimeters per step, for said display;

determining a distance between said side and said sensor;
determining a number of digital steps corresponding to said distance; and
shifting said image said number of digital steps.

16. (Amended) The machine-readable medium of claim 15, wherein stretching said image comprises:
measuring a first vertical height and a horizontal width for said display;
defining a digital step, indicating a predefined number of centimeters per step, for said display;

determining a distance between each side and each sensor;
determining a number of digital steps corresponding to said distance; and
stretching said image said number of digital steps.